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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,258	10/22/2003	Yoon-Min Kim	SAM-0462	5454

7590

04/26/2004

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EXAMINER

NGUYEN, JIMMY

ART UNIT	PAPER NUMBER
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2829

DATE MAILED: 04/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/691,258	Applicant(s) KIM ET AL.	
	Examiner Jimmy Nguyen	Art Unit 2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 8-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1 - 7 in Paper No. 0404 is acknowledged.

Specification

2. The abstract of the disclosure is objected to because "line 20 is improper".
Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3 – 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blanz (US 5166606).

As to claim 1, Blanz discloses (figs 1 and 2) an integrated circuit test system comprising:

a test chamber (10, see figure 2), a portion (40) of which is adapted to interface (32) with a tester (ATE, not shown, column 4 line 9 – 13) having a circuit panel (within the ATE),

an auxiliary chamber (200, load lock chamber, column 9 line 66 –68) adjacent the test chamber (10), the auxiliary chamber (200) including a first door (204) between the auxiliary chamber (200) and the test chamber (10), the auxiliary chamber (200) further including a second door (202) between the auxiliary chamber (200) and an external region (outside of the chamber), the auxiliary chamber (200) for receiving a sample prior and following a test (the load lock chamber 200 receives the wafer prior and following a test); and

a transfer unit (192, column 9 line 59) in the chamber (200, when the door 204 open), for transferring the sample (wafer) between the test chamber (10) and the auxiliary chamber (200) through the first door (204).

It would have been obvious to one having an ordinary skill in the art at the time of the invention was made to recognize that the ATE(automate testing equipment) must include within the system of Blanz as disclosed in column 4 line 9 –13 for the purpose testing the wafer.

As to claim 3, Blanz discloses (figs 1 and 2) the transfer unit (192, column 9 line 59) comprises a transfer robot (arm 194) installed in the chamber, for transferring the sample between the test chamber (10) and the auxiliary chamber (200) in response to an applied control signal.

As to claim 4, Blanz discloses (figs 1 and 2) the system of claim 1 wherein the test chamber (10) further includes a check valve (126) on a wall thereof for discharging air from the test chamber (10) interior to an external region.

As to claim 5, Blanz discloses (figs 1 and 2) the system of claim 1 wherein the test chamber (10) further comprises a region (108, 110, 112, the flex joints allow the conduits adjustable) that allows for the lowering and raising of a supply nozzle (102, 104, 106) to and from the circuit panel.

5. Claims 2, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blanz (US 5166606) in view of Blandin (US 4782291).

As to claim 2, Blanz discloses (figs 1,2) in detail a test chamber, an auxiliary chamber and a transfer unit as explained in claim 1 above. However, Blanz is silent on The system of claim 1, wherein said transfer unit comprises gloves inserted into a wall of the test chamber to allow for manual manipulation of the sample between the test chamber and the auxiliary chamber.

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On the other hand, Blandin teaches transfer unit (70) comprises gloves (72) inserted into a wall of the test chamber (100, plate the put the device under test) to allow for manual manipulation (column 9 line 1 –3) of the sample between the test chamber (100) and the auxiliary chamber (60).

It would have been obvious to one having an ordinary skill in the art at the time of the invention was made to use the gloves in transfer unit for the benefit of transport the sample under test from one place to another manually in case of the electrical transfer unit was break down.

As to claim 7, Blanz discloses (figs 1,2) in detail a test chamber, an auxiliary chamber and a transfer unit as explained in claim 1 above. However, Blanz is silent on chamber is made at least partially of a transparent material to allow for external observation of a test conducted therein.

On the other hand, Blandin teaches chamber (60) is made at least partially of a transparent material (glass) to allow for external observation of a test conducted therein.

It would have been obvious to one having an ordinary skill in the art at the time of the invention was made to provide the testing chamber of Blanz with the viewing port of Blandin for the purpose of observing the testing process in the chamber.

Allowable Subject Matter

6. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior arts of record are silent on the test chamber further includes a hole through which the supply nozzle is positioned, and said test chamber is further equipped with an elastic pipe between the hole and a portion of the supply nozzle positioned within the chamber, said elastic pipe elastically deforming with movement in the supply nozzle, and maintaining a seal of the test chamber. In addition, the elastic pipe positioned within the chamber will allow the movement supply nozzle to connect or disconnect fluid supply to the testing chamber without actually remove the nozzle.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Nguyen at (703) 306-5858. Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4900.


JN.
April 14, 2004